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10/705,459	11/12/2003	1641	1446	26884	6	71	17

CONFIRMATION NO. 8318

G.E. EHRLICH (1995) LTD.
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FILING RECEIPT



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Date Mailed: 04/15/2004

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Assignment For Published Patent Application

Technion Research & Development Foundation Ltd.;

Domestic Priority data as claimed by applicant

Foreign Applications

If Required, Foreign Filing License Granted: 03/29/2004

Projected Publication Date: 05/12/2005

Non-Publication Request: No

Early Publication Request: No

** SMALL ENTITY **

Title

Method of identifying peptides capable of binding to MHC molecules, peptides identified thereby and their uses

Preliminary Class

436

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Title 35, United States Code, Section 184
Title 37, Code of Federal Regulations, 5.11 & 5.15**

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APPLICATION FOR PATENT

Inventors: BARNEA Eilon, BEER Ilan, ZIV Tamar, ADMON Arie,
5 DASSAU Lior, and BUCHSBAUM Samuel

Title: METHOD OF IDENTIFYING PEPTIDES CAPABLE OF BINDING
TO MHC MOLECULES, PEPTIDES IDENTIFIED THEREBY AND THEIR
USES

10 This application is a continuation in part of PCT Patent Application No.
PCT/IL02/00383, filed May 16, 2002, which claims priority from pending U.S.
Patent Application No. 09/865,548, filed May 29, 2001, and U.S. Provisional
Application No. 60/290,958, filed May 16, 2001.

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FIELD AND BACKGROUND OF THE INVENTION

The present invention relates to a method of identifying peptides of a
desired origin and which are capable of binding to MHC molecules of a
20 particular haplotype; peptides identified by the method; pharmaceutical
compositions containing the peptides, databases describing the peptides and
the use of the peptides in vaccination.

The following abbreviations are used herein: MHC, Major
Histocompatibility Complex; $\beta 2m$, $\beta 2$ -microglobulin; ESI, electrospray
25 ionization; MS, mass spectrometry; m/z , mass charge ratio; CID, collision
induced disintegration; MS/MS, tandem mass spectrometry; MTDM, DNA-
methyl transferase; FAS, fatty acid synthase; CTL, cytotoxic T lymphocytes;
mAbs, monoclonal antibodies.

The MHC serves as a shuttle to transport and display peptide antigens
30 on the surface of cells as an indication to the immune system of the health state
of the cells. Each individual has at most six different MHC class-I haplotypes,
out of the hundreds known. MHC bound peptides, i.e., peptides bound to, and
presented in context of, MHC molecules, originate from proteolysis of most of
the proteins expressed in the cells. Therefore, unique sets of MHC bound
35 peptides are displayed by each of the different MHC haplotypes according to

Docket No.
26884

Declaration and Power of Attorney For Patent Application

English Language Declaration

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

METHOD OF IDENTIFYING PEPTIDES CAPABLE OF BINDING TO MHC MOLECULES, PEPTIDES IDENTIFIED THEREBY AND THEIR USES

the specification of which



is attached hereto.



was filed on _____ as United States Application No. or PCT

International Application Number _____

and was amended on _____

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, Code of federal Regulations, Section 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119(a)-(d) or Section 365(b) of any foreign application(s) for patent or inventor's certificate, or Section 365(a) of any PCT International application which designated at least one country other than the United States, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate or PCT International application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s)

Priority Not Claimed

(Number)

(Country)

(Day/Month/Year Filed)



(Number)

(Country)

(Day/Month/Year Filed)



(Number)

(Country)

(Day/Month/Year Filed)



I hereby claim the benefit under 35 U.S.C. Section 119(e) of any United States provisional application(s) listed below:

60/290,958
(Application Serial No.)

16-May-2001
(Filing Date)

(Application Serial No.)

(Filing Date)

(Application Serial No.)

(Filing Date)

I hereby claim the benefit under 35 U.S.C. Section 120 of any United States application(s), or Section 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. Section 112. I acknowledge the duty to disclose to the United States Patent and Trademark Office all the information known to me to be material to patentability as defined in Title 37, C.F.R., Section 1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application:

PCT/IL02/00383
(Application Serial No.)

16-May-2002
(Filing Date)

(Status)
(patented, pending, abandoned)

09/865,548
(Application Serial No.)

29-May-2001
(Filing Date)

Pending
(Status)
(patented, pending, abandoned)

(Application Serial No.)

(Filing Date)

(Status)
(patented, pending, abandoned)

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. *(list name and registration number)*

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